

# Do TJ policies cause backlash?

## Evidence from street name changes in Spain

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### Abstract

Memories of old conflicts shape domestic politics long after these conflicts end. The debates about the Confederacy in the United States or the Francoist regime in Spain suggest that these are sensitive topics that might increase political polarization, particularly when transitional justice policies are implemented to address grievances. One such policy recently debated in the US and Spain is the removal of public symbols linked to past conflicts and authoritarian regimes. However, the empirical evidence on their impact is still limited. This article attempts to fill this gap by exploring the impact of removing Francoist street names in Spain. Using cross-sectional and difference-in-differences analyses, we show that removing Francoist street names has increased electoral support to the new far-right party, Vox. Results suggest that re-visiting the past and trying to redress the victims' grievances can cause a backlash among those ideologically aligned with the perpetrator.

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## Introduction

Memories of contested historical events shape domestic politics across the world. In the United States, the Black Lives Matter movement has sparked a debate over Confederate symbols. The removal of these symbols, a transitional justice (thereafter, TJ) policy, is defended on the grounds that they represent ideas that are no longer acceptable, and that they constitute a roadblock to reconciliation.

Yet, the policy of symbol removal is not free of controversy. In the South of the United States, there have been several instances of right-wing or white supremacist protests when statues of Confederates have been torn down. The 2017 ‘Unite the Right’ rally in Charlottesville, Virginia, opposing the removal of a Robert E Lee statue, escalated into violence and resulted in the death of one person when a white supremacist drove his car into a crowd of counter-protesters.

Do TJ symbolic policies cause a backlash in the form of a shift to radical (i.e. far right) positions? This question is the focus of this article. In particular, we explore a potential backlash effect of the removal of public symbols linked to the Francoist regime in Spain, where memories of the Civil War (1936–1939) still motivate fierce political debates. We exploit some of the changes brought about in Spain by the 2007 Law of Historical Memory, which introduced a mandate to remove Francoist symbols from public spaces, including street names. We study whether the removal of Francoist street names generated an increase in electoral support for Vox, a relatively new far-right party.

Our results support the authoritarian backlash hypothesis. Cross-sectional analyses show there is a correlation between the removal of Francoist street names and electoral support for Vox in Spanish 2019 elections. Also, in order to get closer to a causal identification, we implement a difference-in-difference (DiD) design where we explore the impact of Francoist street name removals on the growth of Vox electoral support between June 2016 and April 2019 elections. Focusing only on a subset of municipalities that still had Francoist street names in June 2016, we show that Vox support increased around 6% more in municipalities where there was a removal of Francoist street names between June 2016 and April 2019 than in places without name removals. Interestingly, we find

that support for the Partido Popular (PP) decreased 8% more in those same municipalities, while support for the the socialist party (PSOE) did not vary, suggesting a potential link to increased asymmetric polarization.

## The consequences of TJ policies

After regime transitions or violent episodes, states often confront the need to come to terms with the past. To this end, states rely on different TJ policies, including legal responses such as trials and amnesties or setting up truth commission, museums, or memorials (De Brito et al., 2001; Elster, 2004; Balasco, 2013). The politics of memory, which involve “the shaping of collective memory by political actors and institutions” (Zubrzycki and Woźny, 2020, 176), are a crucial component of these policies. All these measures aim to serve justice, redress grievances, and avoid the relapse of conflicts. However, the short-term and long-term and consequences of TJ are not clear.

Many scholars praise TJ policies in postconflict contexts, arguing that these policies increase the prospect for democracy (Elster, 2004; Sikkink and Walling, 2007) and reduce the risk of future conflict by increasing accountability for past violence and repression (Kim and Sikkink, 2010; Meernik et al., 2010). TJ policies attempt to redress individual grievances and collective grudges (Scharf, 1997; Akhavan, 1998; Hayner, 2001).

Other authors argue that the positive view on TJ policies is overly optimistic, and that there is scant evidence in support of a beneficial effect of TJ (Mendeloff, 2004; Thoms et al., 2010; Daly and Sarkin, 2011). Some works even claim that TJ policies can have a negative effect on reconciliation and conflict, because the exclusive reliance on prosecution and accountability can bring about social tensions in divided societies (Goldsmith and Krasner, 2003; Snyder and Vinjamuri, 2004).<sup>1</sup>

Some recent works have tried to shed light on this debate. Capoccia and Pop-Eleches (2020) study the effects of TJ trials on prodemocratic attitudes in West Germany, and find heterogenous effects depending on the type of punishment and the ethnic identity of the defendants. Balcells et al. (2020), for their part, study the impact of TJ museums in a field experiment. They find that visiting a TJ museum in Chile can have a reconciliatory effect,

suggesting a positive aspect of the politics of memory. We contribute to this literature by exploring the effects of a particular subset of TJ policies, the removal of symbols from public spaces, on voting behavior in Spain. In particular, we are interested in testing the backlash hypothesis, namely, that removing public symbols will mobilize and radicalize those who are ideologically closer to these symbols. If this hypothesis is true in the context of Spain, we expect to find a local increase in far-right voting in those areas where these TJ symbolic policies were applied.

## **Conflict memories and authoritarian backlash in Spain**

In Spain the Law of Historical Memory, promoted by a left-wing (PSOE) government and passed by the Congress of Deputies in 2007, was an attempt to redress long-held grievances by the victims of the Civil War and the Francoist regime. Among other things, it included provisions for the removal of Francoist symbols from public spaces, such as street names and monuments.

Some local governments had already changed Francoist street names right after the transition to democracy. However, these changes depended on an active decision made at the local level. In many places, either because the civil war/Francoist issue was less salient or because local politicians actively rejected the change, many streets were still named after Francoist symbols or leaders. The 2007 Law prompted local governments to act and offered local associations a legal platform to pressure their local councils.

These policies were hotly contested by particular sectors of Spanish society. Even from the very first years of democratic rule, rightist parties rejected the change of street names or the removal of public monuments by saying that revisiting history only brought old-seated divisions back (e.g. [Fuente, 1980](#)).<sup>2</sup> By the late 2000s, even if the 2007 Law had a broad support in Spanish society, a significant proportion of the population still disagreed with its provisions ([Aguilar et al., 2011](#)).

To analyze the effect of TJ policies aimed at removing symbols, we focus on electoral support for Vox as our measure for far-right ideological preferences. Vox is a relatively new party in Spain which promotes a discourse based on authoritarian conservatism and

a hard-line version of Spanish nationalism. It shares with other populist right-wing parties in Europe a nativist ideology and a rejection of immigration, gender policies, and the social welfare state (Turnbull-Dugarte, 2019; Turnbull-Dugarte et al., 2020). Characterizing the Law of Historical Memory as an instrument of leftist propaganda, Vox campaigned on the national unity of Spain as a way of leaving behind historical divisions and enacted the figure of Francisco Franco as an important political leader who brought peace and stability to the country. This discourse mirrors the ‘forgetting’ policy developed by Franco in the postwar period (Palomares, 2004).

We make use of these two events to assess whether the politics of memory in Spain caused a backlash towards positions closer to the ideology of the Francoist regime. In particular, we measure whether the removal of Francoist street names led to increased support for Vox.

## Empirics

We first test whether the removal of Francoist streets since 2001 is correlated with higher support for Vox in both 2019 elections. We also implement a DiD analysis on the increase in electoral support for Vox between June 2016 and April 2019 elections, using the removal of Francoist street names as our main independent variable and limiting the sample only to those municipalities that still had Francoist street names in June 2016.

### *Francoist street name removal*

To build our main independent variable, we downloaded data identifying all the streets in Spain at different points in time from the National Statistical Institute (INE, 2020). In particular, the INE offers data for every six-month period since January 2011,<sup>3</sup> plus a snapshot of the streets and their names existing in July 2001. We track the change in street names over time using the official ID number for each street.

Using this setup, we identified streets named after Francoist symbols or figures. We used the list published by the Madrid City Council in 2017, following a report by a specially designated commission<sup>4</sup>, and expanded it selecting from street names that were

often changed during this period. We include in the Appendix the full list of Francoist street names. We use a binary indicator of Francoist street name removal in all the main models. In the appendix, we show that the results do not change if we use a continuous measure (logged number of changes) instead.

Figure 1 shows the number of changes during every six-month period, while figure 2 shows yearly data on the share of all the streets with Francoist names. There was an increase in Francoist name removal after 2016, precisely the period we use in our DiD analyses. Two main factors probably explain these trends. First, the initiative to change street names was local and any legal battle or pressure campaign would take time. For example, in mid-2016, Olmedo, Valladolid, was the first municipality to be condemned for not complying with the 2007 Law of Historical Memory ([El Norte de Castilla, 2016](#)). Around the same time, many municipalities began facing trials after being sued by local associations. Second, the decrease in votes for the mainstream right-wing party in the 2015 local and regional elections changed the balance of power which, together with a general increase in the salience of this issue, meant more institutional activity in this direction (e.g. [Vázquez, 2016](#); [El Comercio, 2016](#)).

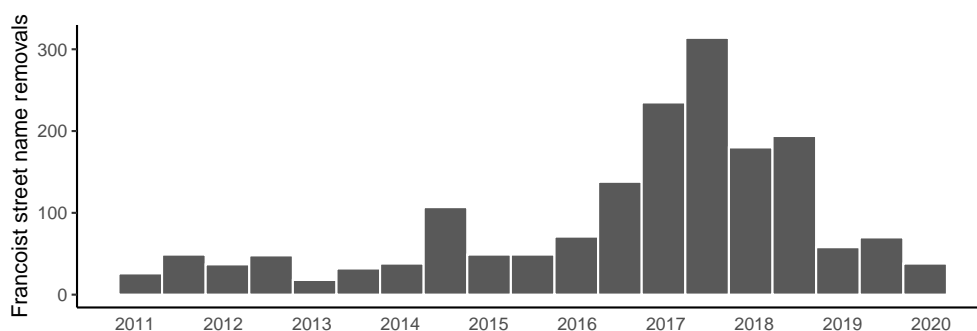


Figure 1: Number of Francoist street name removals over time

However, the post-2016 increase could bias the results if it was related to political dynamics that also explain the change in political preferences. We discuss this issue in more depth in the results section, but the data suggests this is not the case. In the appendix we show that most of the municipalities that removed Francoist street names were small municipalities that had more Francoist street names to start with, and mostly in provinces in the central regions of Spain, which is in line with the factors discussed above.

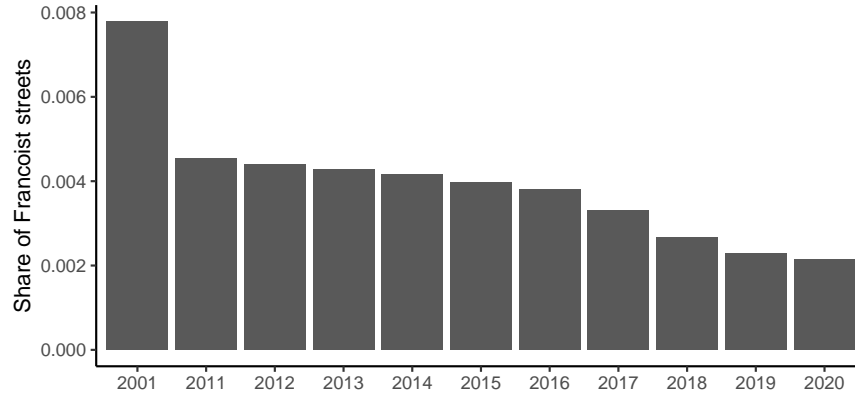


Figure 2: Share of streets with Francoist street names over time

### *Vox electoral support*

We exploit support for Vox as our main dependent variable. We obtained the data from the Spanish Ministry of Interior,<sup>5</sup> and calculated the share of valid votes for Vox in each municipality.

In the DiD analyses, we also use as dependent variables the electoral share for the two mainstream parties, the right-wing Popular Party (*Partido Popular*, PP) and the Spanish Socialist Workers' Party (*Partido Socialista Obrero Español*, PSOE), in order to capture the local shift in political preferences.

### *Control variables*

We include a series of control variables that can be related to electoral support for Vox. In the cross-sectional analyses on electoral results in 2019, we include turnout, the (logged) population in the 2011 census, and the local unemployment rate in January 2011. In the DiD analyses, we include population, unemployment rate in January 2016, the (logged) number of Francoist streets in June 2016, and whether a leftist mayor was elected in the 2015 local elections. In every case, we also include fixed effects at the region level (Autonomous Communities).

## Models

The cross-sectional analyses use a linear regression on the vote share of Vox in both 2019 elections (April and November), using as the main independent variable a binary indicator of street name removal between June 2001 and January 2019, the larger period for which we have data. We use both a full sample of Spanish municipalities and a restricted sample of those municipalities that had at least one street with Francoist name in June 2001.

In the DiD analyses, we use the electoral support for Vox, PP, and PSOE in June 2016 and April 2019 elections as the dependent variable, using as our main independent variable an indicator of street name removal between June 2016 and January 2019. In these models, we only compare municipalities that had at least one street with Francoist name at the beginning of the period.

Table 1: DiD sample classification

Francoist names in June 2016?	Removed Francoist names, 2016–2018?	
	No	Yes
No	6455 (100%)	0 (0%)
Yes (DiD sample)	1184 (72%)	454 (28%)

*Note:* Row percentages. Changes in 2016–2018 refer to the period between 01/07/2016 and 31/12/2018.

Limiting the sample implies that the the control group—those municipalities that did not change street names during this period—is probably more rightist than the average, as more leftist municipalities are more likely to have already changed Francoist street names before mid-2016.<sup>6</sup> Indeed, some municipalities that still had not changed Francoist names by late 2018 were portrayed as the ‘resistance’ to the Law of Historical Memory (Blanco Elípe, 2018), as they actively avoided doing so. This dodging of the Law was possible either because of delays in the legal procedures or some form of ‘foot-dragging’ by local authorities. Because of this, we think that, if anything, the selection bias should



go against the backlash hypothesis, in the sense that the control group is comprised by municipalities where Vox is likely to have grown more between 2016 and 2019. We also include a series of additional models in the appendix to test the robustness of the results.

## Results

Table 2 shows the results of the cross-sectional analyses. The first two columns show that the removal of Francoist street names during the last two decades, between June 2001 and December 2018, is correlated with a higher electoral support for Vox in both April and November 2019 elections. Columns 3 and 4 repeat these analyses with a limited sample of municipalities that still had Francoist street names in June 2001, and also show a positive correlation between street name changes and Vox electoral support.

Table 2: Francoist street name removal and electoral support for Vox

	Apr 2019	Nov 2019	Apr 2019	Nov 2019
	(1)	(2)	(3)	(4)
(Intercept)	0.078*** (0.009)	0.147*** (0.010)	0.119*** (0.018)	0.211*** (0.020)
Francoist street name removal	0.010*** (0.002)	0.013*** (0.002)	0.005* (0.002)	0.008** (0.003)
Unemployment 2019	0.084*** (0.025)	0.195*** (0.031)	0.043 (0.047)	0.141* (0.058)
Turnout April 2019	0.005 (0.010)		-0.020 (0.020)	
Turnout Nov 2019		-0.038*** (0.011)		-0.086*** (0.023)
Log. Population	0.003*** (0.000)	0.006*** (0.000)	0.002* (0.001)	0.003*** (0.001)
CCAA Fixed Effects	Yes	Yes	Yes	Yes
Observations	7,819	7,820	2,164	2,165
R <sup>2</sup>	0.442	0.500	0.292	0.318
Adjusted R <sup>2</sup>	0.441	0.498	0.284	0.311

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . The main independent variable refers to the removal of Francoist street names between June 2001 and December 2018. Models 3 and 4 only include municipalities that had Francoist street names in June 2001.

In the appendix, we show that the results do not change significantly when looking only at street name removals after the 2007 Law of Historical Memory was passed, namely, between 2011 and 2018. We also show that there is no correlation between these name changes and the change in support for Vox between April and November 2019 elections, which suggests that any local effect due to a backlash over the politics of memory took place prior to April 2019.

To get closer to identifying the causal effect of street name changes, we develop a DiD setup where we analyze the increase in electoral support for Vox between 2016 and 2019 elections, together with the main two parties, PSOE and PP. Table 3 shows the results of these analyses. Each of the three columns shows the results for the same model using electoral support for the three different parties. In order to see the results more clearly, figure 3 shows the simulated DiD estimate of the Francoist street name removal.

Table 3: Francoist street name removal and increase in electoral support for parties

	VOX	VOX	PP	PP	PSOE	PSOE
	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	0.056 (0.181)	-1.470** (0.451)	34.151*** (0.462)	54.479*** (0.988)	36.467*** (0.414)	38.104*** (0.977)
Francoist st name removal	-0.016 (0.257)	-0.132 (0.262)	3.018*** (0.658)	1.324* (0.574)	-0.484 (0.590)	-0.024 (0.568)
Election April 2019	12.330*** (0.171)	12.319*** (0.167)	-17.390*** (0.438)	-17.350*** (0.366)	4.259*** (0.392)	4.258*** (0.362)
Removal $\times$ April 2019	0.739* (0.359)	0.724* (0.352)	-1.697+ (0.918)	-1.731* (0.771)	-0.233 (0.823)	-0.243 (0.762)
Controls	No	Yes	No	Yes	No	Yes
CCAA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,338	2,310	2,338	2,310	2,338	2,310
R <sup>2</sup>	0.756	0.768	0.585	0.703	0.414	0.496
Adjusted R <sup>2</sup>	0.754	0.766	0.582	0.701	0.409	0.491

Note: + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Only municipalities that had at least one street with a Francoist name in  $t_0$  were included in the sample.

Results support the idea that the changes caused a backlash. On the one hand, in municipalities where Francoist street names were removed, Vox increased its support 0.7 points more. Considering that the nation-wide electoral share of Vox in April 2019 was 10.3%, this effect is significant: the change in electoral support was around 6% higher in

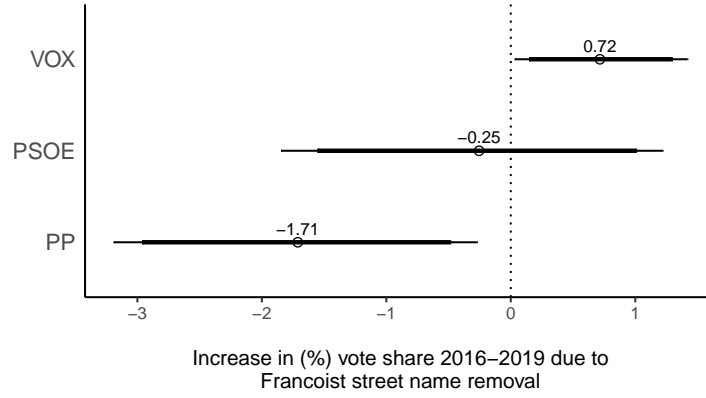


Figure 3: DiD estimates of Francoist street name removal on vote change, obtained from 1000 simulations. Points show the mean estimate, bars indicate 90% and 95% CIs.

these municipalities. On the other hand, the removal of Francoist street names is related to an even higher decrease in electoral support for PP, of almost 1.5 points. However, it did not have any significant effect on electoral support for PSOE, which suggests the change in political preferences took place among rightist individuals.

These results could be confounded if the removal of Francoist street names was explained by the same factors that also explain a shift to far-right preferences. One possibility is that these street name changes, which took place relatively late, took place in more conservative areas where Spanish nationalism was stronger. We believe that any selection bias in the sample should be in the opposite direction from the results. Moreover, if the concern above were true, we should see different trends before 2016 between municipalities that later had a change and those that did not. Figure 4 shows normalized electoral trends among the control and treatment groups for PP and Vox, and we include in the appendix much more detailed models analyzing the parallel trends assumption for Vox, PP, and PSOE. Moreover,

We also show in the appendix results including the main independent variable in continuous form (logged number of street name removals), restricting the sample to municipalities where Vox had more than 0 votes in 2016, and changing the independent variable so it also registers changes that were registered in the first half of 2019, to account for possible delays in the official data. Results do not change in any of these specifications.

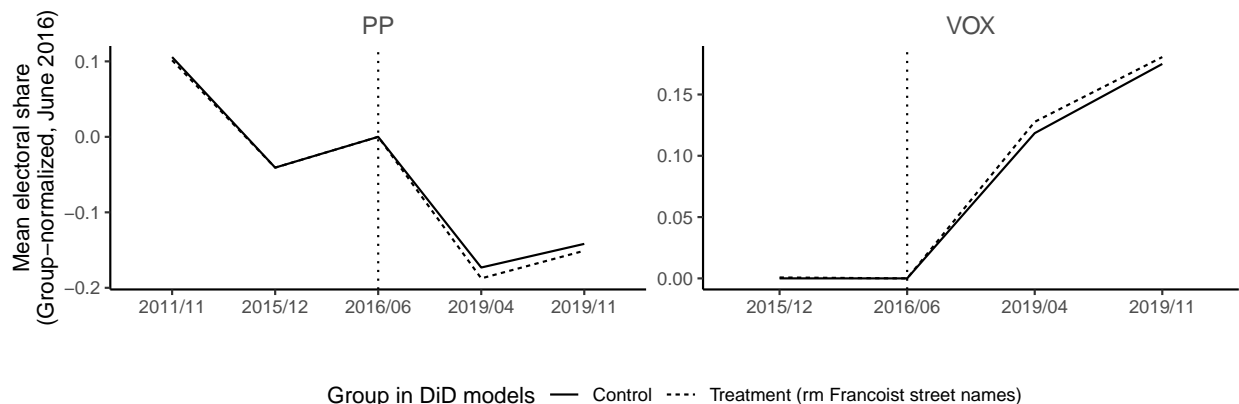


Figure 4: Pre- and post-treatment trends in Vox and PP electoral share

## Conclusion

In this article, we have explored the political effect of the removal of Francoist street names in Spain. Our results suggest that this type of TJ policy can cause a backlash. In particular, using local-level data, we find a short-term positive effect of these changes on the increase in support for the far-right party Vox, a party that has recently gained steam with a discourse grounded in an authoritarian and exclusive version of Spanish nationalism.

The results from our analyses echo recent debates about TJ policies and memories of past conflicts in other countries. For example, the debate in the United States over the Confederate symbols shows that this type of policies can generate political instability and even violence. We show there is room for concern: revisiting the past and trying to redress the victims' grievances might cause a backlash among those ideologically closer to the perpetrator, leading to increased (asymmetric) political polarization.

Far from arguing against these types of policies, we think it is important to be aware of these potentially undesired effects when designing transitional justice policies. Specifically, two aspects merit further attention: First, here we show evidence of a short-term backlash effect. Yet, we do not know what happens in the longer term, particularly whether these policies produce a reconciliation effect down the road. Second, even if the removal of public symbols might cause backlash, the findings of this article do not

necessarily apply to other TJ policies. For instance, recent research shows that TJ museums might have a positive effect on reconciliation ([Balcells et al., 2020](#)) and that the overall effect of TJ depends on the balance between different measures ([Olsen et al., 2010](#); [Loyle and Appel, 2017](#))

All in all, this article focuses on a relatively unexplored question. Exploiting recent political events in Spain, we offer empirical evidence suggesting that, in the short run, symbolic transitional justice policies might have an unintended externality: an increased support for the far-right.

## Notes

<sup>1</sup>The idea that TJ policies might intensify old hatreds and divisions was precisely one of the arguments held by conservative sectors in Spain against the 2007 Law of Historical Memory.

<sup>2</sup>The exhumation of Francisco Franco from the Valley of the Fallen in late 2019 is probably the latest high-key example of the implementation of this law and the political tension it brought about (Taladrid, 2019).

<sup>3</sup>Specifically, it offers the official data for June 30th and December 31st.

<sup>4</sup>The full list is available online at <https://bit.ly/37cLGgk> (accessed 26/11/2020).

<sup>5</sup>Results are available at <http://www.infoelectoral.mir.es/> (accessed 03/12/2020).

<sup>6</sup>See the appendix for empirical analyses on this.

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Online Appendix for:  
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## Contents

A1 Francoist street names	2
A2 DiD sample and treatment strength	4
A3 Descriptives on Francoist street name removals	6
A4 Comparing treated vs control and sample vs out-of-sample	9
A5 Additional cross-sectional analysis	15
A6 Robustness tests (difference-in-differences)	19
A7 First difference models	24

## A1 Francoist street names

We considered as Francoist the following street names. The starting point was the list published by the Madrid City Council in 2017, where they proposed a list of 52 street names to be removed, following a report by the Historical Memory Commission.<sup>1</sup> This list was expanded, manually selecting from the street names most commonly changed. Indeed, among all the changes between 2001 and 2020, the five most commonly removed street names were all key Francoist figures: 'Jose Antonio,' 'Calvo Sotelo,' 'General Mola,' 'Generalísimo,' and 'General Franco.' The full list:

18 de Julio; Alcalde Conde de Mayalde; Alcazar; Alcazar de Toledo; Alferez Provisional; Almirante Francisco Moreno; Angel del Alcazar; Arco de la Victoria; Arriba Espana; Aunos; Batalla de Belchite; Batalla del Ebro; Caidos; Caidos (de Los); Caidos (los); Caidos de la Division Azul; Caidos Por la Patria; Calvo Sotelo; Calvo Sotelo (de); Capita Cortes; Capitan Cortes; Capitan Cortes (del); Capitan Haya; Capitan Luna; Carlos Pinilla; Carlos Ruiz; Carrero Blanco; Caudillo; Caudillo (del); Cerro de Garabitas; Cirilo Martin Martin; Comandante Franco; Comandante Franco; Comandante Zorita; Conde Vallellano; Crucero Baleares; Defensores del Alcazar; Defensores del Alcazar; Dieciocho de Julio; Diego Salas Pombo; Division Azul; Doctor Vallejo-Nagera; Eduardo Aunos; Ejercito Espanol; El Algabeno; Emilio Jimenez Millas; Falange Espanola; Federico Mayo; Federico Servet; Fernandez Ladreda; Francisco Franco; Franco; Garcia Morato; General; General Aranda; General Asensio Cabanillas; General Cabanellas; General Cabanellas; General Davila; General Fanjul; General Franco; General Garcia de la Herranz; General Garcia Escamez; General Kirkpatrick; General Millan Astray; General Mola; General Mola (del); General Moscardo; General Munoz Grandes; General Orgaz; General

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<sup>1</sup>The full list and the reasons for the choice of each street name is available online at <https://bit.ly/37cLGgk> (accessed 26/11/2020).

Primo de Rivera; General Queipo de Llano; General Rodrigo; General Romero Basart; General Sagardia Ramos; General Saliquet; General Sanjurjo; General Varela; General Yague; Generalísimo; Generalísimo (del); Generalísimo Franco; Gobernador Carlos Ruiz; Hermanos Falco y Alvarez de Toledo; Hermanos Garcia Noblejas; Heroes del Alcazar; Jose Antonio; Jose Antonio (de); Jose Antonio Giron; Jose Antonio Giron; Jose Antonio Primo de Rivera; Jose Luis de Arrese; Jose Maria Peman; Juan Pujol; Juan Vigon; Lepanto; Los Martires; Manuel Sarrion; Martires; Martires (los); Matias Montero; Millan Astray; Munoz Grandes; Onesimo Redondo; Pilar Primo de Rivera; Primero de Octubre; Primo de Rivera; Puerto de los Leones; Queipo de Llano; Ramiro Ledesma; Ramon Franco; Ruiz de Alda; Salas Pombo; Veintiocho de Marzo

## A2 DiD sample and treatment strength

Figure 1 shows the treatment strength (i.e. the number of Francoist name removals) depending on the number of streets with Francoist names in June 2016. Because of scale problems, the city of Madrid was removed from the graph, even though it follows a similar pattern: Madrid had 60 streets with Francoist names in mid 2016, and removed 52 of those during the period. The graph shows that most streets had very few streets in 2016 and removed those (usually 1 or 2), while a small subset had more streets and removed either all or part of them.

Figure 2 shows the distribution of remaining streets with Francoist names on January 1st, 2019, among those municipalities that were classified as treated in the analyses. Most municipalities that were treated between mid 2016 and late 2018 removed all their streets with Francoist names, and only a small minority retained a small number of Francoist streets (mostly one or two).

In many cases, differences in treatment strength—and the fact that there were remaining Francoist streets names after this period—is due to the fact that the list of Francoist names we use (list in previous section A1) is very comprehensive: many municipalities likely removed the most famous and relevant Francoist names, which arguably were the ones most likely to produce some kind of effect on local political preferences.

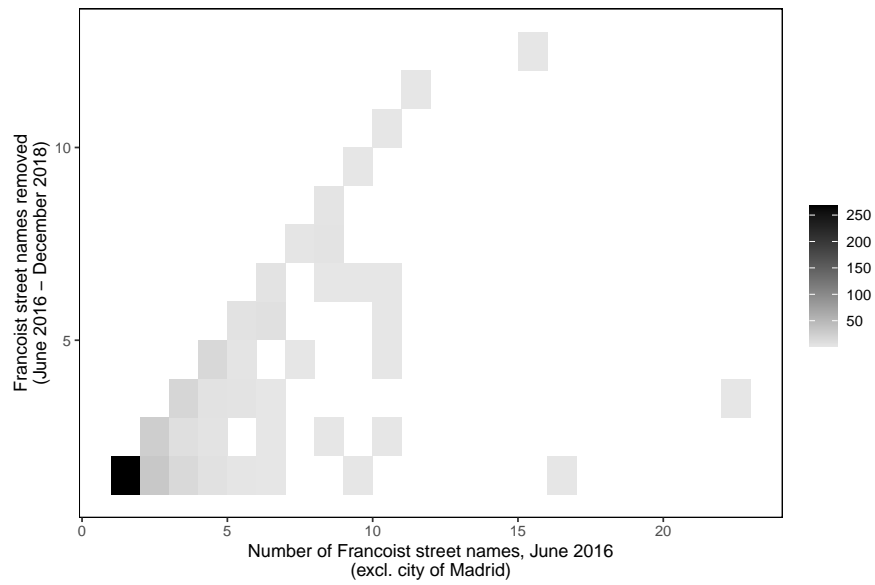


Figure 1: Treatment strength among the treated

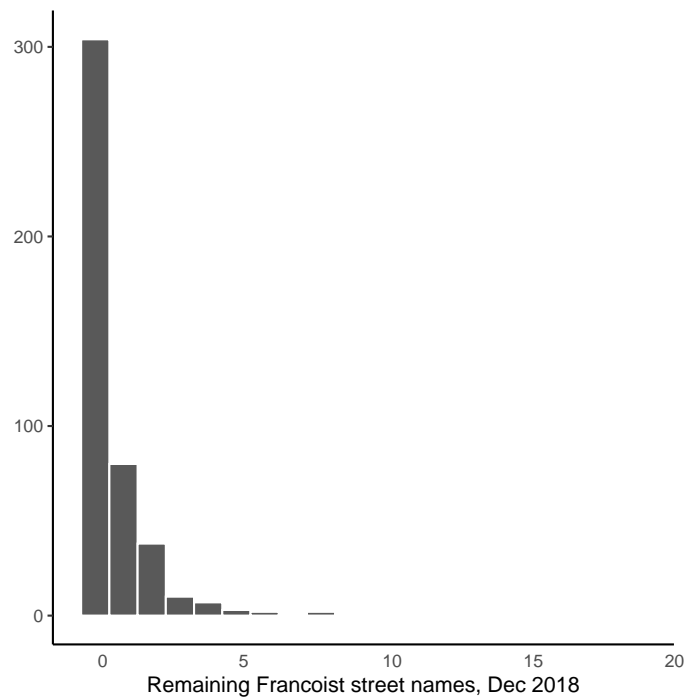


Figure 2: Remaining Francoist streets on treated municipalities 'after treatment'

### **A3 Descriptives on Francoist street name removals**

Figure 3 shows the number of Francoist street name removals by province in three different time periods: 2001–2020, 2011–2016, and 2016–2018. Figure 4 shows the share of Francoist street by province at three different points in time: June 2001, January 2010, and June 2016. A quick look shows that provinces that removed more Francoist streets during the whole available period are similar to those that removed more Francoist names between 2016 and 2019, which are also provinces that had a higher share of Francoist streets in 2001. These are mostly provinces in central Spain, where Francoist streets were not removed earlier on either because of inertia or ideological opposition, as discussed in the main text.



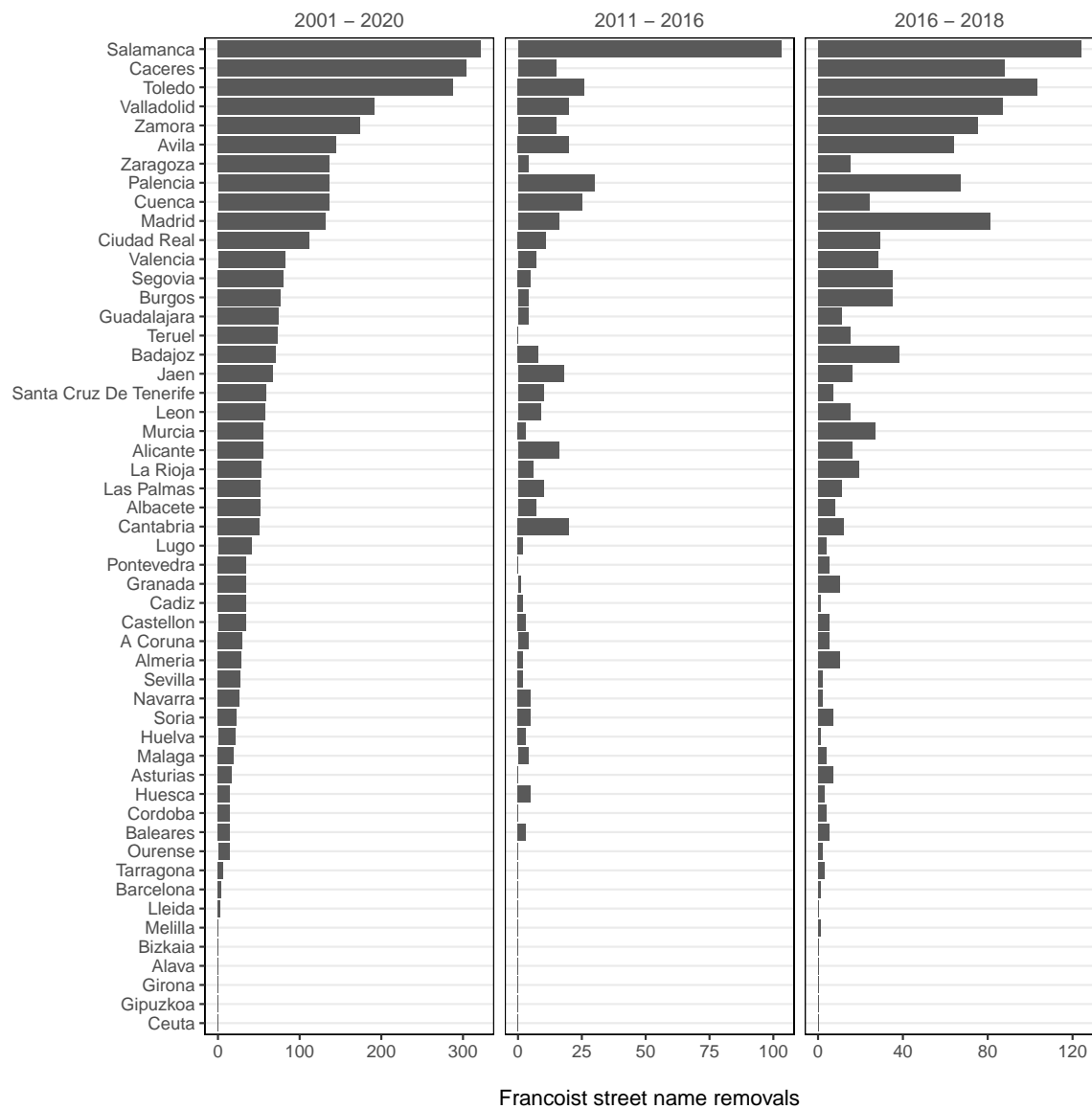


Figure 3: Number of Francoist street name removals over time

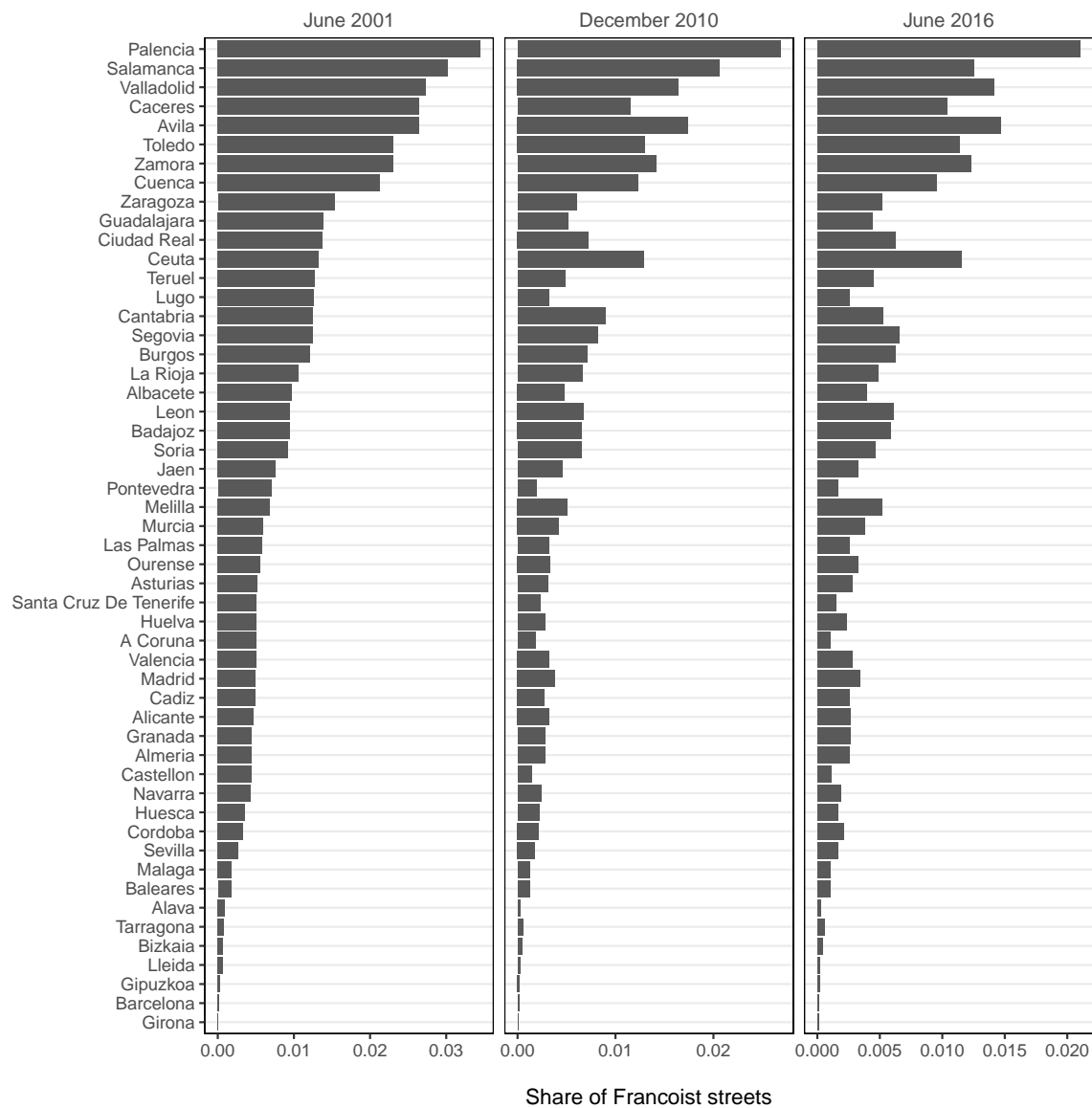


Figure 4: Share of Francoist streets in each province

## A4 Comparing treated vs control and sample vs out-of-sample

One of the main concerns of the main analyses is that treated and control municipalities in the difference-in-differences analyses are not comparable. To assess empirical evidence on this problem, table 1 shows the results of regressing a binary indicator of Francoist street name removal between 2016 and 2018 (the period covered in the DiD analyses in the main text) on a set of explanatory variable. The sample only includes those municipalities that still had Francoist streets in June 2016.

Table 1: Logit regression on Francoist street name removal (2016–2018)

	(1)	(2)	(3)
(Intercept)	0.326*** (0.044)	0.150* (0.062)	−0.289 (0.206)
Leftist mayor 2015	−0.008 (0.021)	0.021 (0.022)	0.024 (0.026)
Log. Population 2011	−0.051*** (0.005)	−0.038*** (0.006)	−0.030*** (0.008)
Log. No. Francoist streets June 2016	0.339*** (0.023)	0.328*** (0.024)	0.342*** (0.027)
PP support, June 2016			0.159 (0.130)
Vox support, June 2016			−2.861 (3.558)
Turnout, June 2016			0.438+ (0.229)
CCAA Fixed Effects	No	Yes	Yes
Observations	1,636	1,636	1,167
Log Likelihood	−867.939	−841.697	−523.509
Akaike Inf. Crit.	1,743.879	1,727.394	1,091.019

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Only including municipalities that had at least one street with Francoist names in June 2016.

The picture that emerges from these analyses is that it was mainly smaller municipalities with a high number of Francoist streets at the beginning of the period the ones that were more likely to remove Francoist street names. Interestingly, neither

the election of a leftist mayor in 2015 nor electoral support for Vox and PP in June 2016 elections show any significant relationship with being assigned into treatment.

Moreover, following figures 3 and 4, these municipalities were located mostly in the center of Spain. These results are in line with the idea that municipalities that still had and changed street names during this period were probably the ones that had not done so because of political inaction and that, if anything, the selection bias goes against our main hypothesis.

The core idea of the selection bias is that the sample, because of still having Francoist street names as late as 2016, should be relatively more rightist than the overall sample of Spanish municipalities. Table 2 shows the results of t-tests between municipalities in and out of the sample (i.e. having any Francoist street name in June 2016) on electoral share for PP, PSOE, and Vox in all elections between 2011 and 2019. Interestingly, the data shows that although support for rightist parties was stronger among municipalities that still had Francoist street names in June 2016, support for the center-left PSOE was higher as well. Probably, this is due to the fact that the sample is more likely to include municipalities in the central regions in Spain compared to peripheral regions, where the main two parties (PP and PSOE) have much less support (particularly in Catalonia and the Basque Country).

In order to check this, table 3 shows results of logistic regression of electoral support for PP and PSOE on being in the sample (having Francoist street names in June 2016), including CCAA fixed effects and controlling for population. In this case, the results are much more clear: municipalities in the sample show higher levels of electoral support for the right-wing PP.

Going further back in time, table 4 and table 5 repeat these analyses but distinguishing between municipalities that had or did not have Francoist street names in June 2001, the earliest point in time for which we have available data. Moreover, we use data on all elections since 2000. Again, the same patterns emerge. Municipalities that had Francoist street names in later periods were more, on average, more rightist, or at least supported PP stronger.

Table 2: Mean comparison municipalities in/out of sample (with/without Francoist street names in June 2016)

Party	In sample	Out of sample	Diff	P-value
April 2019				
PP	26.72%	23.95%	2.77	0.000***
PSOE	31.72%	28.04%	3.68	0.000***
VOX	12.31%	9.33%	2.97	0.000***
June 2016				
PP	44.42%	38.49%	5.94	0.000***
PSOE	27.21%	23.13%	4.08	0.000***
VOX	0.21%	0.2%	0.01	0.650
December 2015				
PP	40.34%	35.26%	5.08	0.000***
PSOE	27.86%	23.26%	4.6	0.000***
VOX	0.23%	0.22%	0	0.796
November 2011				
PP	54.87%	47.07%	7.8	0.000***
PSOE	31.23%	28.01%	3.23	0.000***

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Table 3: Voting for PP/PSOE and having a Francoist street name in June 2016

	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	−0.208*** (0.048)	−0.183*** (0.049)	−0.179*** (0.049)	−0.246*** (0.048)	−0.268*** (0.042)	−0.248*** (0.044)
PP (2000/03)	0.126* (0.052)					
PSOE (2000/03)	−0.149** (0.053)					
PP (2004/03)		0.128* (0.054)				
PSOE (2004/03)		−0.200*** (0.055)				
PP (2008/03)			0.131* (0.056)			
PSOE (2008/03)			−0.197*** (0.055)			
PP (2011/11)				0.212*** (0.051)		
PSOE (2011/11)				−0.157** (0.056)		
PP (2015/12)					0.263*** (0.045)	
PSOE (2015/12)					−0.138** (0.054)	
PP (2016/06)						0.237*** (0.046)
PSOE (2016/06)						−0.175** (0.057)
Log. Pop 2011	0.073*** (0.003)	0.076*** (0.003)	0.074*** (0.003)	0.072*** (0.003)	0.075*** (0.003)	0.074*** (0.003)
CCAA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,593	7,890	7,893	7,897	7,897	7,897
Akaike Inf. Crit.	6,625.822	6,839.057	6,837.529	6,829.387	6,830.442	6,827.124

Note: + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

Table 4: Mean comparison municipalities with/without Francoist street names in June 2001

Party	In sample	Out of sample	Diff	P-value
April 2019				
PP	27.23%	23.47%	3.75	0.000***
PSOE	31.53%	27.75%	3.77	0.000***
VOX	12.22%	9.08%	3.15	0.000***
June 2016				
PP	44.85%	37.74%	7.11	0.000***
PSOE	26.9%	22.86%	4.04	0.000***
VOX	0.21%	0.2%	0.02	0.278
December 2015				
PP	40.85%	34.57%	6.28	0.000***
PSOE	27.5%	22.95%	4.55	0.000***
VOX	0.24%	0.22%	0.02	0.260
November 2011				
PP	55.17%	46.2%	8.96	0.000***
PSOE	31%	27.78%	3.21	0.000***
March 2008				
PP	48.65%	41.07%	7.58	0.000***
PSOE	42.99%	39.63%	3.37	0.000***
March 2004				
PP	48.49%	41.57%	6.92	0.000***
PSOE	42.09%	36.68%	5.41	0.000***
March 2000				
PP	53.18%	46.81%	6.37	0.000***
PSOE	36.21%	31.46%	4.74	0.000***

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Table 5: Voting for PP/PSOE and having a Francoist street name in June 2001

	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	−0.269*** (0.052)	−0.252*** (0.053)	−0.231*** (0.054)	−0.338*** (0.053)	−0.328*** (0.047)	−0.305*** (0.048)
PP (2000/03)	0.234*** (0.056)					
PSOE (2000/03)	−0.083 (0.058)					
PP (2004/03)		0.239*** (0.059)				
PSOE (2004/03)		−0.125* (0.061)				
PP (2008/03)			0.205*** (0.061)			
PSOE (2008/03)			−0.126* (0.061)			
PP (2011/11)				0.340*** (0.056)		
PSOE (2011/11)				−0.047 (0.062)		
PP (2015/12)					0.358*** (0.050)	
PSOE (2015/12)					−0.066 (0.059)	
PP (2016/06)						0.327*** (0.051)
PSOE (2016/06)						−0.105+ (0.063)
Log. Pop 2011	0.078*** (0.003)	0.081*** (0.003)	0.079*** (0.003)	0.077*** (0.003)	0.082*** (0.003)	0.080*** (0.003)
CCAA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,593	7,890	7,893	7,897	7,897	7,897
Akaike Inf. Crit.	8,001.884	8,353.067	8,365.240	8,343.314	8,342.123	8,342.252

Note: + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .



## A5 Additional cross-sectional analysis

Table 6 shows the results of cross-sectional analyses similar to the ones shown in the main text but using the change in support for Vox between April and November 2019 as the dependent variable. As discussed in the main text, these results that any effect of the removal of Francoist streets took place between the April 2019 elections.

Table 6: Francoist street name removal and change in electoral support for Vox during 2019

	Full sample	Limited sample
	(1)	(2)
(Intercept)	2.195*** (0.119)	2.362*** (0.156)
Francoist street name removal	−0.015 (0.020)	0.003 (0.019)
Unemployment 2019	0.518 (0.337)	0.450 (0.404)
Turnout April 2019	−0.623*** (0.133)	−0.799*** (0.178)
Turnout Nov 2019	−0.009+ (0.005)	−0.018** (0.006)
CCAA Fixed Effects	Yes	Yes
Observations	7,552	2,153
R <sup>2</sup>	0.078	0.134
Adjusted R <sup>2</sup>	0.075	0.125

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

The main independent variable refers to the removal of Francoist street names between June 2001 and December 2018. The limited sample corresponds to municipalities that had Francoist street names in June 2001.

Tables 7 and 8 replicate the analyses in the main text—plus the model using the change between April and November as dependent variable—using as independent variable the removal of Francoist streets between 2011 and 2018, using the full and limited samples, respectively. Results point in the same direction as the cross-

sectional models in the main text, that is, the removal of Francoist street names is correlated with the increase in support for Vox between 2016 and 2019.

Table 7: Electoral support for Vox and Francoist street name removal (2011–2018)

	Apr 2019	Nov 2019	Change
	(1)	(2)	(3)
(Intercept)	0.078*** (0.009)	0.145*** (0.010)	2.197*** (0.119)
Francoist street name removal	0.010*** (0.002)	0.013*** (0.002)	−0.011 (0.026)
Unemployment 2019	0.083*** (0.025)	0.195*** (0.031)	0.517 (0.337)
Turnout April 2019	0.005 (0.010)		−0.623*** (0.133)
Turnout Nov 2019		−0.037*** (0.011)	
Log. Population	0.003*** (0.000)	0.006*** (0.000)	−0.009+ (0.005)
CCAA Fixed Effects	Yes	Yes	Yes
Observations	7,819	7,820	7,552
R <sup>2</sup>	0.441	0.499	0.078
Adjusted R <sup>2</sup>	0.440	0.497	0.075

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . The main independent variable refers to the removal of Francoist street names between December 2010 and December 2018.

Finally, for comparison, table 9 repeats the cross-sectional analyses but including the main independent variable (the removal of Francoist street names) for different periods, using support for Vox as our dependent variable. In particular, we include street name removals between 2001 and 2015 (*before* our study period), 2001 and 2018 (full period), 2011 and 2018, and 2016 and 2018 (same period as in the main analyses). We only include municipalities that had Francoist street names at the beginning of each period. The results show that the removal of Francoist street names only has a significant correlation with support for Vox when recent name removals are included, i.e., when the independent variable includes removals in 2016 and after.

Table 8: Electoral support for Vox and Francoist street name removal (2011–2018), limited sample

	Apr 2019	Nov 2019	Change
	(1)	(2)	(3)
(Intercept)	0.115*** (0.020)	0.218*** (0.022)	2.476*** (0.174)
Francoist street name removal	0.006* (0.002)	0.007* (0.003)	−0.012 (0.022)
Unemployment 2019	0.002 (0.051)	0.097 (0.062)	0.381 (0.443)
Turnout April 2019	−0.012 (0.023)		−0.901*** (0.200)
Turnout Nov 2019		−0.088*** (0.025)	
Log. Population	0.002* (0.001)	0.003*** (0.001)	−0.023** (0.007)
CCAA Fixed Effects	Yes	Yes	Yes
Observations	1,791	1,792	1,782
R <sup>2</sup>	0.269	0.296	0.129
Adjusted R <sup>2</sup>	0.260	0.287	0.118

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . The main independent variable refers to the removal of Francoist street names between December 2010 and December 2018. Only municipalities that had Francoist street names in January 2011 were included.

Table 9: Electoral support for Vox in 2019 and Francoist street name removal across different periods

	2001-2015	2001-2018	2011-2018	2016-2018
	(1)	(2)	(3)	(4)
(Intercept)	0.120*** (0.018)	0.119*** (0.018)	0.115*** (0.020)	0.118*** (0.021)
Francoist street name removal	0.003 (0.002)	0.005* (0.002)	0.006* (0.002)	0.007* (0.003)
Unemployment 2019	0.045 (0.047)	0.043 (0.047)	0.002 (0.051)	-0.031 (0.053)
Turnout April 2019	-0.020 (0.021)	-0.020 (0.020)	-0.012 (0.023)	-0.020 (0.024)
Log. Population	0.001 <sup>+</sup> (0.001)	0.002* (0.001)	0.002* (0.001)	0.003** (0.001)
CCAA Fixed Effects	Yes	Yes	Yes	Yes
Observations	2,164	2,164	1,791	1,611
R <sup>2</sup>	0.290	0.292	0.269	0.264
Adjusted R <sup>2</sup>	0.283	0.284	0.260	0.254

*Note:*  $+p < 0.1$ ;  $*p < 0.05$ ;  $**p < 0.01$ ;  $***p < 0.001$ . The main independent variable refers to the removal of Francoist street names in different periods: 1) June 2001 - December 2015, 2) June 2001 - December 2018, 3) December 2010 - December 2018, and 4) June 2016 - December 2018. Only municipalities that had Francoist street names at the beginning of each period were included.

## A6 Robustness tests (difference-in-differences)

Table 10 shows the robustness tests for the DiD analyses using electoral support for Vox as the dependent variable, while tables 11 and 12 do the same but using PP and PSOE share, respectively, as the dependent variable. All models in these tables include elections before June 2016: December 2015 in the case of Vox, and all elections since March 2000 for PP and PSOE. Model 2 extends the dependent variable to the first half of 2019, accounting for potential delays in the registration of name changes that could have affected electoral support in April 2019. Model 3 uses the independent variable in continuous form, namely, the logged number of street name removals. Model 4 restricts the sample to municipalities where Vox got more than 0 votes in 2016 elections, to account for potential estimation issues.

The two main takeaways from these results is that the main result does not change across the different specifications and that the parallel trend assumption holds. In the case of Vox, the pre-treatment DiD estimate (December 2015) does not show any statistical significance, while in the case of PP none of the DiD estimates between March 2000 and December 2015 in any of the models is significant either. In the PSOE models, it seems that municipalities that later removed Francoist names showed more support for the PSOE in earlier elections (November 2011 and December 2015), but this result is not robust across all specifications.

Finally, table 13 repeats the main analyses for PP and Vox using normal standard errors, heteroskedasticity-consistent standard errors, and standard errors clustered at the level of municipalities. Although levels of significance go down in the case of Vox, it still retain statistical significance and, in the case of PP, significance increases.

Table 10: Francoist street name removal and increase in electoral support for Vox

	(1)	(2)	(3)	(4)
(Intercept)	−0.968** (0.326)	−0.969** (0.326)	−0.929** (0.324)	0.127 (0.399)
Francoist street name removal	−0.078 (0.220)	−0.066 (0.215)	−0.163 (0.188)	−0.231 (0.253)
Election December 2015	−0.101 (0.148)	−0.102 (0.149)	−0.109 (0.144)	−0.119 (0.159)
Election April 2019	12.319*** (0.142)	12.305*** (0.144)	12.300*** (0.139)	12.898*** (0.153)
Francoist removal × Dec 2015	−0.019 (0.314)	−0.011 (0.306)	0.021 (0.253)	−0.048 (0.362)
Francoist removal × April 2019	0.724* (0.299)	0.735* (0.293)	0.746** (0.244)	0.789* (0.347)
Controls	Yes	Yes	Yes	Yes
CCAA Fixed Effects	Yes	Yes	Yes	Yes
Observations	3,303	3,303	3,303	2,259
R <sup>2</sup>	0.802	0.802	0.802	0.844
Adjusted R <sup>2</sup>	0.801	0.801	0.801	0.843

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . All models also include elections before June 2016 (December 2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in  $t_0$ , and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in  $t_0$  (June 2016) were included in the sample.

Table 11: Francoist street name removal and increase in electoral support for PP

	(1)	(2)	(3)	(4)
(Intercept)	49.323*** (0.593)	49.312*** (0.594)	49.484*** (0.589)	43.384*** (0.751)
Francoist street name removal	1.009* (0.511)	0.974 <sup>+</sup> (0.502)	0.841 <sup>+</sup> (0.436)	0.634 (0.695)
Election March 2000	8.091*** (0.374)	8.015*** (0.379)	8.132*** (0.363)	8.539*** (0.428)
Election March 2004	3.291*** (0.374)	3.273*** (0.379)	3.310*** (0.363)	3.614*** (0.428)
Election March 2008	4.267*** (0.374)	4.264*** (0.379)	4.218*** (0.363)	6.074*** (0.428)
Election November 2011	10.569*** (0.374)	10.561*** (0.379)	10.538*** (0.363)	12.127*** (0.428)
Election December 2015	-4.075*** (0.374)	-4.063*** (0.379)	-4.039*** (0.363)	-4.218*** (0.428)
Election April 2019	-17.382*** (0.376)	-17.343*** (0.381)	-17.379*** (0.364)	-17.657*** (0.428)
Francoist removal $\times$ March 2000	-0.106 (0.711)	0.161 (0.698)	-0.241 (0.594)	0.132 (0.970)
Francoist removal $\times$ March 2004	0.741 (0.711)	0.754 (0.697)	0.634 (0.594)	0.674 (0.970)
Francoist removal $\times$ March 2008	-0.631 (0.711)	-0.581 (0.697)	-0.430 (0.594)	-0.087 (0.970)
Francoist removal $\times$ Nov 2011	-0.425 (0.711)	-0.369 (0.697)	-0.295 (0.594)	0.040 (0.970)
Francoist removal $\times$ Dec 2015	-0.007 (0.711)	-0.049 (0.697)	-0.132 (0.594)	-0.158 (0.970)
Francoist removal $\times$ April 2019	-1.422* (0.712)	-1.466* (0.699)	-1.352* (0.594)	-1.781 <sup>+</sup> (0.970)
Controls	Yes	Yes	Yes	Yes
CCAA Fixed Effects	Yes	Yes	Yes	Yes
Observations	11,325	11,325	11,325	5,502
R <sup>2</sup>	0.683	0.683	0.683	0.718
Adjusted R <sup>2</sup>	0.682	0.682	0.682	0.717

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . All models also include elections before June 2016 (2000–2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in  $t_0$ , and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in  $t_0$  (June 2016) were included in the sample.

Table 12: Francoist street name removal and increase in electoral support for PSOE

	(1)	(2)	(3)	(4)
(Intercept)	43.175*** (0.562)	43.245*** (0.564)	43.096*** (0.559)	51.206*** (0.705)
Francoist street name removal	-0.564 (0.490)	-0.786 (0.481)	-0.037 (0.415)	0.310 (0.654)
Election March 2000	6.449*** (0.357)	6.420*** (0.361)	6.456*** (0.346)	7.318*** (0.403)
Election March 2004	6.890*** (0.357)	6.827*** (0.361)	6.943*** (0.346)	6.638*** (0.403)
Election March 2008	-5.501*** (0.357)	-5.565*** (0.361)	-5.396*** (0.346)	-6.722*** (0.403)
Election November 2011	-9.073*** (0.357)	-9.160*** (0.361)	-9.044*** (0.346)	-10.212*** (0.403)
Election December 2015	-9.755*** (0.357)	-9.839*** (0.361)	-9.682*** (0.346)	-10.713*** (0.403)
Election April 2019	-5.127*** (0.357)	-5.184*** (0.361)	-5.066*** (0.346)	-6.637*** (0.403)
Francoist removal $\times$ March 2000	-1.026 (0.677)	-0.863 (0.664)	-0.994 <sup>+</sup> (0.563)	-1.004 (0.911)
Francoist removal $\times$ March 2004	-0.477 (0.677)	-0.232 (0.664)	-0.632 (0.563)	-0.737 (0.911)
Francoist removal $\times$ March 2008	0.402 (0.677)	0.595 (0.664)	0.021 (0.563)	-0.208 (0.911)
Francoist removal $\times$ Nov 2011	1.120 <sup>+</sup> (0.677)	1.344* (0.664)	0.959 <sup>+</sup> (0.563)	0.418 (0.911)
Francoist removal $\times$ Dec 2015	1.234 <sup>+</sup> (0.677)	1.443* (0.664)	0.916 (0.563)	0.158 (0.911)
Francoist removal $\times$ April 2019	0.801 (0.677)	0.946 (0.664)	0.551 (0.563)	0.139 (0.911)
Controls	Yes	Yes	Yes	Yes
CCAA Fixed Effects	Yes	Yes	Yes	Yes
Observations	11,300	11,300	11,300	5,493
R <sup>2</sup>	0.572	0.572	0.572	0.671
Adjusted R <sup>2</sup>	0.570	0.570	0.570	0.669

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . All models also include elections before June 2016 (2000–2015). Model 2 extends the DV (name removal) to the first half of 2019. Model 3 uses the IV in continuous form (logged number of changes). Model 4 restricts the sample to municipalities where Vox got more than 0 votes. Controls include a dummy for a leftist major elected in 2015 local elections, logged population in 2011, logged number of Francoist streets in  $t_0$ , and the unemployment rate in January 2016. Only municipalities that had at least one street with a Francoist name in  $t_0$  (June 2016) were included in the sample.



Table 13: Main models using conventional, robust or clustered SE

	VOX	PP	VOX Het.	PP Robust SE	VOX Clustered SE	PP
	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	-1.470** (0.451)	54.479*** (0.988)	-1.470*** (0.434)	54.479*** (1.121)	-1.470*** (0.432)	54.479*** (1.466)
Francoist st name removal	-0.132 (0.262)	1.324* (0.574)	-0.132 (0.128)	1.324* (0.633)	-0.132 (0.129)	1.324* (0.665)
Election April 2019	12.319*** (0.167)	-17.350*** (0.366)	12.319*** (0.160)	-17.350*** (0.361)	12.319*** (0.171)	-17.350*** (0.188)
Removal $\times$ April 2019	0.724* (0.352)	-1.731* (0.771)	0.724+ (0.381)	-1.731* (0.782)	0.724+ (0.403)	-1.731*** (0.431)
CCAA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,310	2,310	2,310	2,310	2,310	2,310
R <sup>2</sup>	0.768	0.703	0.768	0.703	0.768	0.703
Adjusted R <sup>2</sup>	0.766	0.701	0.766	0.701	0.766	0.701

Note: + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Clustered SE at the level of municipalities.

## A7 First difference models

Tables 14 and 15 show first difference models on the change in electoral support for Vox and PP, respectively, across the three most recent electoral periods and the ones in which Vox participated: between December 2015 and June 2016, June 2016 to April 2019, and April 2019 to November 2019. The results are coherent with the main findings: we only find a significant relationship between the removal of Francoist street names and change in electoral support during the 2016–2019 period, which is positive for Vox (and similar to the main DiD estimate) and negative for PP, even though it only reaches a 90% level of significant in the latter case.

Table 14: First differences model on change in support for Vox

	2015-2016	2016-2019	2019-2019
	(1)	(2)	(3)
(Intercept)	−0.000 (0.000)	0.122*** (0.003)	0.072*** (0.002)
Francoist street name removal	−0.000 (0.000)	0.007* (0.003)	0.001 (0.002)
CCAA Fixed Effects	Yes	Yes	Yes
Observations	1,001	1,169	1,638
R <sup>2</sup>	0.008	0.211	0.158
Adjusted R <sup>2</sup>	−0.005	0.200	0.148

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . The dependent variable refers to the change in support for Vox ( $t_1 - t_0$ ) in each of the three periods. Only municipalities that had at least one street with a Francoist name in  $t_0$  (June 2016) were included in the sample.

Table 15: First differences model on change in support for PP

	2015-2016	2016-2019	2019-2019
	(1)	(2)	(3)
(Intercept)	0.037*** (0.002)	-0.146*** (0.003)	0.022*** (0.002)
Francoist street name removal	-0.001 (0.002)	-0.006+ (0.003)	0.001 (0.002)
CCAA Fixed Effects	Yes	Yes	Yes
Observations	1,638	1,619	1,619
R <sup>2</sup>	0.049	0.179	0.058
Adjusted R <sup>2</sup>	0.038	0.170	0.047

*Note:* +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . The dependent variable refers to the change in support for PP ( $t_1 - t_0$ ) in each of the three periods. Only municipalities that had at least one street with a Francoist name in  $t_0$  (June 2016) were included in the sample.